Local marine study nets model for universal research

by Lindy Brophy

A wide-ranging project to characterise the fish habitats in the Recherche Archipelago is creating a new benchmark for modelling marine environments.

A group of about 12 research scientists and postgraduate students has close to $2 million in funding, with the major part coming from the Fisheries Research and Development Corporation (FRDC), for a three-year study of the region.

This project is mapping the shallow (up to 100 metres deep) subtidal areas. A CSIRO group based in Hobart is working on methods for mapping and modelling deeper ocean habitats.

Dr Gary Kendrick and Dr Euan Harvey (School of Plant Biology) and their team are developing innovative low-cost systems for sampling, identifying and recording information about the marine environment in the waters off Esperance, with committed support from the local community.

It has been a couple of years since Gary Kendrick and Euan Harvey first visited Esperance as volunteers to help the community’s Coastcare program. They started training the locals how to sample and identify what was in their marine environment. The community project developed into this much bigger scientific project after discussions with the Recherche Advisory Group and after the FRDC agreed to help fund it.

“While the waters of the Recherche Archipelago are our focus, this project is also a trial, to develop a model for characterising marine environments,” they said. “The end product must be transferable to other marine environments.”

Their research is concentrated on the benthic (or bottom-dwelling) habitats in shallow water including linking habitat...
I have at last read Tim Winton’s new novel Dirt Music, a great sprawling saga in which the real focus is on the extraordinary environment of coastal and interior regions of the north-west of our State.

And I read his big book while enjoying a winter vacation with my wife Paddy in the very same regions and towns of Western Australia.

Dirt Music was a wonderful daily read as we journeyed to Geraldton, Carnarvon and the Exmouth Peninsula, Port Hedland and Broome, and then visiting the interior Pilbara wonders of Karijini and the communities around Tom Price, Newman and Meekatharra.

Tim Winton has the eye of the poet in evoking that stupendous landscape of ochre soils and lavender-coloured mountains, large skies and ancient geological formations in the gorges and flood plains. He captures the social and cultural feel of the small towns, mining communities, even the road houses on long and largely empty roads which snake their way across a vast ancient landscape. We returned from the north-west having yet again felt it had been more than a holiday: more an experience in space and time and perspective.

Awaiting me was a rather different text: Minister Nelson’s latest Discussion Paper in the national review process, this one entitled Setting Firm Foundations.

When I place the two together, a powerful issue stands out. Not only the distinctive character of Western Australia, as a separate region of the nation, but of the critical role of education in our society as a diverse, demographically spread and growing state of ours confronts the challenge of the changing world.
distributions to sea floor type and exposure to swells and currents.

“We aim to provide detailed ecological information to ensure the responsible management of the marine environment including aquaculture and fisheries in the region,” Dr Kendrick said.

“Another objective is to increase community awareness of fish habitats through community involvement in the field work, and through community consultation and presentations,” said Dr Harvey, who has recently been awarded a prestigious UWA Postdoctoral Research Fellowship.

“The people of Esperance have a very strong feeling of ownership of their pristine marine environment and they have been extraordinarily supportive of our work,” he said.

Local companies, the Esperance Port Authority and MG Kailis have donated more than $100,000 in cash to the project. In-kind contributions have been just as generous. Locals have given the use of their boats, their time, reduced boat hire rates, access to workshop staff (port authority), access to Internet (Esperance Community College), and their unbounded enthusiasm and friendship.

The University (Schools of Plant Biology and Centre for Water Research), Western Australian Museum, the Australian Institute of Marine Science and the University of Melbourne are all funding salaries and equipment. Greens Senator Dee Margetts also sponsored a launch for the project that was attended by 120 locals.

The team aims to construct an ecological model that they can use to predict where specific ecological communities, such as seagrass meadows and coral reefs, will be found. They are conducting broad scale surveys of habitat distribution, assessing the length, frequency and diversity of fish populations, and assessing the biological components of communities of seagrass, algae, infauna (worms, shellfish) and epifauna (sponges, soft corals). “It’s actually more complex than it sounds,” said Dr Harvey.

During April and May, the group carried out broad-scale drop camera surveys of 3,000 sites in the Archipelago.

“The drop video camera technique has the advantage of allowing us to quickly see the bottom type, the topography and the biology,” explained Dr Kendrick. “It is non-destructive and allows us to sample reef areas without harming anything. With SCUBA diving, we can only make up to five dives a day. We can lower the camera up to 150 times a day.

“Recording video also allows us to store a permanent record for other researchers and groups to access, and it means we can share information with the community in an easily digestible format.”

During May and June the group did a broad-scale assessment of fish communities within the habitats, using baited video cameras, another variation on non-destructive sampling.

Also during the early part of the winter, they conducted an inshore seagrass camera survey using small boats donated by the community.

“When people think of a marine environment, they automatically think of fish. But there’s a lot more to a marine habitat than fish. And one of our aims is to educate people about what they have in their marine environment, so they know how to look after it. It’s fantastic that so much of the community is already interested,” Dr Harvey said.

In the spring, the team will do a finescale SCUBA diving survey of sponge, ascidian and seaweed habitats in the archipelago.

They explained that, under the United Nations’ law of the sea, people are only able to claim their territorial waters if they know what’s in them. So their work will be beneficial to more than just the fishing industry.
A n exhibition where you can feel another person’s voice through a sofa, you can feed your worries to living worry dolls, and rat neurones in the US automate a robotic arm in Perth?

Yeah, and pigs might fly…

At SymbioticA’s current exhibition at the Perth Institute of Contemporary Art (PICA), pigs almost do fly. The art and science collaborative research laboratory in Anatomy and Human Biology has cultivated pig bone marrow tissue into bio-absorbable polymers designed in the shape of bird, bat and dinosaur wings—hence, pig wings!

In the centre of the PICA exhibition space is a laboratory set up where the pig wings are being cultivated. “Feeding time is at 3pm each day,” said artist Oron Catts, sounding like a zoo keeper.

There is also a display of pig wings which were nine months in the making, then preserved in formaldehyde and dipped in gold, so they look like delicate gold jewellery.

“Within our lifetime, we have seen the body metamorphose into a malleable mass: rhinoplasty, lung transplants and breast enlargements are no longer met with the shock and awe of yesterday,” said Oron Catts.

“But advances in medical science producing controversial new areas such as gene therapy and cross-species manipulation has reignited the debate about how far humans should interfere with nature.”

“Contemporary art moves into this brave new world with BioFeel, the biggest living tissue biological art exhibition in the world.”

Pig Wings plays with the idea of science making the impossible possible. But, as senior lecturer in anatomy and human biology and co-director of SymbioticA, Dr Stuart Bunt, says, it is not beyond the realms of possibility that we will one day be
using living cells in our everyday technology.

“Would you feel differently about, say, your camera, if it was powered by a living cell, rather than a battery? How would you feel if you dropped it?”

Dr Bunt says it was this sort of scenario that we could well be considering in years to come, and coming to terms with these ideas through art was a non-threatening way of initiating the debate.

Oron Catts, Ionat Zurr and Guy Ben-Ary have won international acclaim for their artistic experimentation and research over the past six years in the Tissue Culture and Art Project. SymbioticA was recently short-listed as a finalist in the World Technology Award for the Arts 2002.

The ground-breaking installation, Fish&Chips, produced by the SymbioticA research group featured in an international electronic art exhibition in Austria last year, has ‘mutated’ into what they now call Meart.

Instead of fish neurones being grown over silicon chips, a ‘semi-living artistic entity’ has been produced using rat neurones. This time the neurones are in a laboratory in Atlanta, Georgia, where the group was working late last year.

The impulses from the neurones are received via a computer, which translates them, through a robotic arm, into a pattern of movement and drawings.

The worry dolls are a take on the South American tradition of dolls for children to tell their worries to, putting them under their pillows to get rid of their anxieties.

Via an Internet site, the group has received hundreds of worries from people all over the world, with which they will ‘feed’ the dolls – another example of living tissue culture.

“The site is a good way of gauging interest in our work and getting some feedback,” said Oron.

American colleague Adam Zaretsky has joined the group for this exhibition, which also features soundwaves. Volunteers lie on a couch and speak into a microphone and their words are felt, rather than heard, through vibrations in another couch across the room. On the way, the soundwaves also pass through beakers of liquid containing cells and make them vibrate at different intensities.

Last semester, Oron and Adam ran a course called Vivo Art for second and third year fine arts students, encouraging them to explore the world of art and science. “We had to start by teaching them biological laboratory techniques,” they said.

Running concurrently with BioFeel, curated by Oron Catts, was the first international SymbioticA symposium: The Aesthetics of Care? The one-day symposium last week brought together stimulating speakers focusing on the artistic, social and scientific implications of the use of biological and medical technologies for artistic purposes.

The symposium and the exhibition are part of the Biennale for Electronic Arts Perth (BEAP).

Presenting a paper to the symposium, A Complicated Balancing Act? How can we access the use of animals in art and science? Stuart Bunt discussed the absolutist position forbidding the use of animals in scientific experiments and the inherent difficulties of using such an approach. He canvassed the particular ethical and scientific challenges presented when such rules are applied to the use of living material in art works.

World-renowned geneticist Professor Lori Andrews also addressed the symposium. She has been involved in setting policies for genetic technologies and advising the World Health Organisation and US Congress on genetic and reproductive technology. Professor Andrews is also involved with discussions with artists who want to use genetic engineering to invent new living species.

BioFeel is at PICA in the Cultural Centre, Northbridge until August 25, Tuesday to Sunday 11am to 7pm. Admission is free.
The rain fell in sheets, the skies were leaden and Pearce airbase refused permission for a rocket launch, but nothing could dampen the enthusiasm of Professor David Blair. His passion for the third phase of the Australian International Gravitational Observatory infected the physicists and other academics, politicians, students and many guests at the recent launch of the Gravity Discovery Centre at the research facility’s Gingin site.

The observatory and research centre, for scientists working in the field of gravitational wave detection Australia-wide, has been the brain-child of Professor Blair.

His dedication to the centre was remarked on by most of the guests who spoke at the launch of the Discovery Centre. Federal Education Minister, Brendan Nelson, said only an hour after meeting Professor Blair, that he embodied the spirit of the people Australia needed to further the cause of scientific endeavour:

“These people have two attributes: first, that they are prepared to bleed for the cause; and, second, they are so over-enthusiastic that you have to hose them down twice a day!"

On a more serious note, Dr Nelson said the development of the gravitational research centre and observatory was as important to our nation’s future as the development of the railway system was more than a century ago.

“We are laying not just a foundation stone today, but the foundation for the future of WA and Australia,” he said.

At that, there was no prissy little curtain to be opened, revealing a dedication plaque. The Minister simply cut a rope which tethered a limestone block to a tree. As the rope snapped, the limestone block fell perfectly into place beside another one, at the same time revealing a brass plaque, which reads:

“… the development of the gravitational research centre and observatory is as important to our nation’s future as the development of the railway system was more than a century ago.”
The development of the rocket reflected the human quest for knowledge and understanding of our planet and the universe.

The Hon Dr Brendan Nelson MP, Commonwealth Minister for Education, Science and Training, launched a rocket on this site on 24 July 2002 to inaugurate construction of the Gravity Discovery Centre.

It did not matter that the rocket was not launched: the sentiment remained the same.

The Discovery Centre will provide a public window for research carried out at the observatory. The first stage should be completed in about nine months. The centre will house a range of sculptural and interactive displays designed to appeal to a broad range of visitors and students.

It will focus on the big questions of life and the universe, gravity technology and the Aboriginal heritage of the land on which the centre is built.

Visitors will have the chance to repeat Galileo’s famous free fall experiments from the Leaning Tower of Gingin; take a virtual-reality tour of the Universe; measure the rotation of the earth using the giant Foucault pendulum; take a ride on the Gravity Glass Elevator; examine sunspots; and create their own laser art.

Already in the laboratories, Professor Blair has quirky demonstrations set up, one with a pendulum, which he tried on Dr Nelson.

Students from Gingin District High School were among the guests at the launch and Mark McGowan, MLA and Parliamentary Secretary to the Premier, said the facility was a great opportunity for them and for all students in WA to further their scientific discovery. But he admitted that, when he was at school, he spent more time searching for the perfect wave than the gravitational wave.

The chairman of The Gravity Discovery Centre Foundation Inc, Emeritus Professor John de Laeter, himself a scientist of great vision, commended Professor Blair’s commitment to opening up physics experiments to people of all ages.

He said the Foundation had already raised $1.3 million for the centre.

Philanthropists Sir Lawrence and Lady Jean Brodie-Hall, who donated funds for the development of the observatory’s biggest telescope, were delighted to name it the Brodie-Hall Telescope.

The Vice-Chancellor, Professor Deryck Schreuder, said Professor Blair had told him, on a previous visit to the observatory, to “listen to the stars”.

“I think I know what he means,” said the Vice-Chancellor. “Just being here, you get a sense of being with people who are making new knowledge, and that is very exciting.”

More about the Gravity Discovery Centre, described as ‘a science education facility linked to real science, original art, a pristine environment, indigenous culture and a brilliant night sky’, can be found at www.gravity.uwa.edu.au/GDC/overview.html.

Sir Lawrence and Lady Jean Brodie-Hall unveiled the Brodie-Hall telescope.

Noongar custodian Kevin Cameron ‘plays’ a blessing to the crowd.

Physicist Dr Ju Li, Professor Blair’s wife, and their son, Julian, at the launch.

Students Brittany Marmion and Michelle Hanky share the moment with Professor Schreuder, Kevin Cameron, Dr Nelson and Professor Blair.

Professor Blair talks Dr Nelson into trying out one of his pendulum experiments – and it works!
While WA’s universities may be in competition for students and research funds, they are united in the fight against racism.

In 2001 the United Nations held its third conference in a series against racism. It provided a unique opportunity to create a new world vision for the fight against racism in the twenty-first century.

In its final declaration the UN urged educational institutions to develop cultural and educational programs aimed at countering racism, racial discrimination, xenophobia and related intolerance, in order to ensure respect for the dignity and worth of all human beings and enhance mutual understanding among all cultures and civilisations.

In response to this call, the five Vice-Chancellors of the universities of Western Australia have set up a joint university committee to implement strategies and policies that ensure Western Australian universities act proactively in dealing with issues of race and discrimination.

The WA Universities Vice-Chancellors’ Forum against Racism is chaired by Caroline Wood, a member of Amnesty International and Manager of UWA’s Centre for Water Research. Beverley Hill, our acting manager of Equity and Diversity, represents UWA.

“UWA aims to produce citizens of the world,” said Beverley Hill. “And to be citizens of the world, they must be comfortable with and respectful of cultural and racial differences.”

She is co-ordinating a forum at UWA next month called Let’s talk about race: culture, privilege and prejudice. The forum, on September 12 will be free and open to public and will focus on how perceptions of race can affect education.

They keynote speaker will be Ghassan Hage, an academic from the University of Sydney. Other guests include Aboriginal activist and UWA law graduate Gningala Yarran-Clanton, the president of the Ethnic Communities Council, WA Suresh Rajan, and a representative from the International Students’ Association. ABC commentator Geraldine Doogue will moderate the forum.

“We need to put ourselves under the microscope,” said Ms Hill. “Look at our work and education calendar for example: We still use a system that was set up for an exclusively Christian society, observing Sunday as a day of rest and taking our main holidays at Easter and Christmas.

“It is understandable, because Christianity still dominates in Australia, but we need to be aware and to accommodate other beliefs, cultures and races in the way our working lives and education systems are structured.”
Curiosity driven research

Why do Shark Bay dolphins play with puffer fish? And what makes a dugite bite so lethal? Scientific research that can end up with very useful information often starts with simple curiosity about the things around us.

Next week, National Science Week — Australia’s annual celebration of science and technology — aims to raise public awareness of science. The fun and excitement of discovery is the pre-eminent theme — which we hope will extend to the public from the researchers, teachers and other science communicators. We want to promote the pursuit of knowledge, arouse curiosity in young and old and show that science can be accessible to all.

In our research laboratories, however, what is the reality of our scientific pursuits? How many of us have the luxury of pursuing science out of curiosity? Winning research grants is becoming tougher and tougher — to the point where we need not only preliminary results, but to virtually know our ultimate outcomes (and that they will be patentable). It practically disallows us to explore new territory! In other words, we can hardly investigate why the dolphins in Shark Bay play with puffer fish, or why so much antivenom is required to treat dugite envenomation, or what makes a jellyfish sting so nasty … or can we?

Upon arriving in Perth my scientist husband and I were overwhelmed by the unique West Coast flora and fauna and how understudied it appeared to be. We came across many unanswered questions such as those above. As protein biochemists/chemists, we were new to the study of natural products — but to investigate some of these questions was irresistible. We had the necessary tools for the job (in the form of molecular separation and biophysical analysis of molecules) and so we dived in. And the wonderful thing about universities is that next door is a physiologist who can show us how to look at the effects of venom in a rat muscle preparation, or a cell biologist who can prepare beating heart cells for biological assays, or a zoologist who can show us how to isolate a venom gland from an unlucky dugite … and enthusiastic students willing to try anything new. Most importantly – thanks to the Medical Research Fund of WA and the Raine Medical Research Foundation we found support for our curiosity driven research!

So now we know that the dolphins in Shark Bay may be ‘getting high’ on tetrodotoxin, that our local dugite contains highly potent phospholipase and neurotoxic proteins in its venom and that the local little box jellyfish (the ones that give us the mild stings at the beach), in fact contain a potent haemolytic protein – more potent than that of the infamous east coast ‘deadly box jellyfish’. We have learnt a huge amount about our natural surroundings and initiated international interest in our work. And, in addition, the molecules we have discovered stand us in good stead for doing further work to develop useful pharmacological tools and novel medical molecules.

It’s getting harder and harder to find support for basic science – but that is truly where the scientist’s heart lies and is, in fact, from where the discoveries that will end up benefiting the nation will arise. We have to let the public know this, and to share with them the fun and excitement of curiosity driven research.

Tom Hungerford’s coming to dinner

A copy of a Chaucer text, early editions of Beethoven’s piano sonatas and sixteenth century maps of Australia are among the treasures of the University Library.

And this rich inheritance is due to the generosity of Friends of the Library. Their annual contributions have, for many years, supplemented the Library’s budget, and helped acquire some rare and precious texts.

To keep the tradition going, Friends of the Library are hosting a fund-raising dinner, with award-winning local author Tom Hungerford as a guest speaker. The dinner, at University House on Thursday August 29 at 6.30pm, will be a rare opportunity to hear the author of Stories from Suburban Road speak in public. President of Friends of the Library, Emeritus Professor David Tunley, said that now, more than at any other time, the library needs its Friends. “With the price of books spiralling ever-upwards and the cost of on-line journals and databases, there is little left for the purchase of those rare and precious items that make a university library so special,” he said.

Tickets for the dinner are $65 (which include a tax-deductible donation of $20) and available from the Friends on 9380 2356 or fax 9380 7832.
**Vale Alan Richardson**

Emeritus Professor Alan Richardson, a Senior Honorary Research Fellow in the School of Psychology, died recently. His long-time friend and colleague, Emeritus Professor John Ross, wrote and delivered a stirring eulogy, which he called simply, The Life of Alan Richardson. Here are some excerpts …

**Alan Richardson was a much-loved and respected academic, family man and a man in touch with his inner guide.**

He grew up in an affectionate household full of books, music and practical sense, in his parents’ holiday camp in Devon, England. At a similar holiday camp in WA, later in life, the daughter of the owner cut herself badly and her mother appealed to Alan, who had registered as Dr Richardson.

Instead of muttering “I’m not a real doctor”, as the rest of us would, Alan sprang to her aid, cleaning and bandaging the wound and assuring mother and child that all would be well, before resuming his game of table tennis.

As a young man, he liked boxing, but preferred judo, the art of deflecting violent intentions. There is a story that Alan once disarmed a woman who had come to the old Psychology buildings in Fairway on a Saturday morning, armed with a loaded pistol and planning to shoot her lover. He did this, they say, without distressing the woman and her daughter of the owner cut herself badly and her mother appealed to Alan, who had registered as Dr Richardson.

Outside his work interests, Allan had a passion for sailing, and once sailed to Sydney in a steel-hulled ketch with Graeme (“Purple”) Brown, another former Physics apprentice. Over the past eighteen months, whilst battling a major illness, Allan enjoyed assisting (Chief Technician) Mike Cull and his group of handicapped sailors prepare their yachts for a sail on the Swan River.

Allan’s great sense of humour held him in good stead for the rigours of his work. He enjoyed good music, often attending the University’s lunchtime concerts, and also served for many years as Pool Manager at Hollywood Senior High School.

**… and in memory of Allan Gorham**

Ian McArthur, Head of the School of Physics, has put together, with the help of his colleagues, a tribute to Allan Gorham, a senior technician for many years and a great friend to many in the School.

It is with great sadness that we mark the loss of an esteemed friend and colleague, Senior Technician Allan Gorham, who passed away at the Cottage Hospice on July 12 2002.

Allan was appointed to the staff of the Physics Department as an apprentice instrument maker on February 15, 1965, at the age of 17. He made an immediate impression with his aptitude and diligence.

In the early years of Allan’s career he played a significant part in a major upgrading of the teaching laboratories, and later contributed his technical talents to research projects including mass-spectrometry, atmospheric physics, electron microscopy, X-ray crystallography, gravity waves and atomic physics research.

Due to his experience, technical skill, intuition and willingness to help out, Allan found himself in constant demand as a troubleshooter and innovative problem solver.

More recently, with upheavals brought about by budget constraints, Allan’s skills were heavily in demand in the undergraduate teaching laboratories. His infectious enthusiasm for everything to do with Physics made a deep impression on students with whom he interacted in this role. He was also involved with running and maintaining the Department’s liquid helium plant, which often required after-hours work.

Outside his work interests, Allan had a passion for sailing, and once sailed to Sydney in a steel-hulled ketch with Graeme (“Purple”) Brown, another former Physics apprentice. Over the past eighteen months, whilst battling a major illness, Allan enjoyed assisting (Chief Technician) Mike Cull and his group of handicapped sailors prepare their yachts for a sail on the Swan River.

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Allan will always be remembered not only for his technical skills, but also for his cheerful and unassuming disposition - a man who worked without fanfare or fuss in the service of others. He is survived by his wife Lyn and their two children Jenni and Chris, to whom we offer our most sincere condolences.
The country’s best-known young ‘rock-jock’ is a guest speaker at an annual meeting of biological scientists.

Scott Hocknull, a palaeontologist and the Young Australian of the Year, will talk at the Combined Biological Sciences Meeting in Perth on August 23. One of the chairs of the conference is UWA biochemist Dr Elizabeth Quail, and she has invited UWA geologist Dr Annette George to chair Scott’s presentation.

Scott was just eight years old when he developed a passion for dinosaurs and palaeontology – a passion he didn’t outgrow, but nurtured into a profession. He has recently been appointed the youngest museum curator in Australia, Assistant Curator of Palaeontology and Vertebrate Palaeontologist at The Queensland Museum.

He is studying for his PhD at the University of New South Wales, looking at the changing climate of Australia over the past three to four million years, with the aim of aiding the conservation of Australia’s living species.

Dr Quail said she invited him to the meeting because his passion, his tireless pursuit of excellence and his quest for understanding our past, in the hope of preserving our future, make him an important role model for all Australians.

For more information about the meeting, visit www.cbsm.uwa.edu.au

If there’s one feature you would choose to describe the overriding architectural detail of the campus, it would have to be arches. Most residents of and visitors to Perth would immediately recognise the graceful limestone arches of Winthrop Hall, the administration building and Hackett Hall.

But where is this secret archway? Flanked by doorways and rubbish bins, it sits, uncelebrated, in the southern wing of Hackett Hall, once obviously part of an external colonnade, now sadly relegated to getting in the way of mail trolleys and vacuum cleaners.

If you have a secret spot on campus, a favourite feature or a little-known fact to share, please send it to us: lindy.brophy@uwa.edu.au or phone extension 2436, fax 1192.

Scott Hocknull, Young Australian of the Year, will inspire biological scientists

ALL GO FOR EXPO

It’s countdown time for expo and most of the work’s been done.

Now we can start to get excited as we tie up all the little loose ends that will go to making the day a great success.

A full program is now on the University’s website and it includes the program which will appear in The West Australian on Saturday August 17. Expo co-ordinator, Ian Liburne, encourages staff to study the program and choose some events to attend, so that a day at work can be even more enjoyable.

You can choose from the Black Swan Theatre Company’s production of Copenhagen at 1pm in the Octagon, a performance of Ravel’s Bolero in Winthrop Hall at noon, the launch of organist Annette Goerke’s new CD of Messiaen’s organ works, also in Winthrop at 3pm, and a wine tasting, courtesy of University House, in the undercroft.

A pre-expo forum will be held in the week before expo and all staff will be notified of this briefing opportunity. Expo baseball caps and badges will also be distributed during that week.

“I want to assure staff that we have taken into account the possibility – even the probability! – of rain and most displays are under cover. For those that are not, we have wet weather contingency plans in hand,” Ian said.

The Human Movement Tram (for the movement of humans) will leave the Reid Library every hour and half-hour for the School of Human Movement and Exercise Science. It leaves Human Movement at a quarter to and a quarter past every hour.

Have a great day on August 25.
Faculties fly brand new colours

The University’s logo provides us with an initial position of strength in our dealings with business, industry, government and the community. The implementation of a new system of sub-branding across faculties and websites is almost complete and the introduction into administrative areas is under way. The system provides each faculty with a visual identity through colour and graphic display, within the primary UWA corporate brand. The restructure, to be fully implemented by January 1, 2003, provides an opportunity to develop consistency in the use and support of UWA’s logo and visual branding. Late last year, senior management supported the development of a range of contemporary visual elements that along with the existing logo would support the sub-branding of faculties, schools and administrative units. The purpose is to provide a visually unifying focus for faculties yet retain a direct visual link to the primary University brand. It is to provide consistency of use and flexibility of design for publications, stationery, power point presentation, advertising and display material and integration with the web-site. At the same time a more simplified, clean and contemporary look has been given to recruitment advertising in consultation with the Office of Human Resources. The design elements were finalised in consultation with faculties and are now available from the Offices of the Deans, UWA Publications and Uniprint. The application of the UWA logo to all forms of visual communication has always been important. It lets the observer know from which University the communication emanates and strengthens the image of UWA. Faculties are encouraged to use their new visual branding elements without the need for extra logos and badges. In situations where application of these elements is not appropriate, the primary ‘stand alone’ UWA logo and logotype should be used.

From the Deputy Vice-Chancellor, Professor Alan Robson
WA’s unique database follows IVF children

Recent research revealing the rate of birth defects in IVF babies has stirred worldwide interest, and a second more extensive study is now under way.

The first study showed that babies conceived through assisted conception procedures were twice as likely to be diagnosed with a major birth defect in the first year of life. Co-authored by Michele Hansen and Dr Carol Bower of the Telethon Institute for Child Health Research, it was published in the New England Journal of Medicine.

The Institute is now conducting a further study, tracking children through the first six years of their life with a grant from the National Health and Medical Research Council.

Michele Hansen said that WA was exceptionally well placed to conduct the research, being the only Australian state — and one of very few places around the world — to have a comprehensive Reproductive Technology Register. It is mandatory that fertility clinics report all assisted conception treatment to the register which has now become an important research tool, along with this State’s existing comprehensive population-based registers that have information on conditions such as cerebral palsy and intellectual disability.

“IVF clinics do not always keep track of patients once a pregnancy has occurred, so this makes it harder to follow the health outcomes of IVF children. The linked databases in Western Australia make this task a lot easier,” Ms Hansen said.

She said the second study would be much bigger, involving about 2000 assisted conception births. It will look at the prevalence of birth defects diagnosed in children by six years of age as well as admission to hospital, and the incidence of cerebral palsy and intellectual disability. Results for assisted conception children will be compared to those for the remainder of WA infants born over the same time period (1993-2000).

“It is important that these studies are done so that couples seeking treatment can be well informed. It is also important to those planning health services to know the costs involved in the care of IVF children. Even though they may represent a small proportion of Australian births, if they contribute disproportionaly to hospital costs, we need to know,” Ms Hansen said.

Compiled by Joanna Thompson
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Tuesday 13 August
POPULATION HEALTH SEMINAR

Wednesday 14 August
GEOGRAPHY SEMINAR
‘Local initiatives for local regional development: the interplay of food, wine and tourism’, Professor Michael Hall. 1pm, Geography Lecture Theatre I.

INSTITUTE OF ADVANCED STUDIES LECTURE
‘Democracy, the Middle East and the international arena’, Brenda Katten, Chairperson of Public Affairs and non-governmental organisations for the Women’s International Zionist Organ-isation. 6pm, Geography Lecture Theatre I.

Thursday 15 August
INSTITUTE OF ADVANCED STUDIES LECTURE
‘Prometheus’ vulture and the promise of stem cells’, Dr Nadia Rosenthal, Head of European Molecular Biology Laboratory, Rome. 7.30pm, Alexander Lecture Theatre, Arts Building.

Friday 16 August
MICROBIOLOGY SEMINAR
‘Kinetics and mechanisms of binding of platinum anti-cancer of drugs to DNA’, Professor Sue Berners-Price, Chemistry. 9am, Seminar Room I.1, First Floor, L Block, QEIMC.

Monday 19 August
ASTHMA AND ALLERGY RESEARCH INSTITUTE SEMINAR
‘WA research tissue network’, Dr Nik Zeps, Radiation Oncology. 12.30 to 1.30pm (lunch provided from 12.30pm), Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

THE WESTERN AUSTRALIAN MUSEUM CENTRE FOR ANCIENT EGYPTIAN STUDIES LECTURE
‘Queens and conspiracies in Ramesside Egypt’, Dr Joyce Tyldesley, Liverpool University. ‘The fortress at the end of the world; the Ramesside Fortress of Zawiyet Umm el-Rakham’, Dr Steven Snape, Liverpool University. 6pm, NEW Maritime Museum, Fremantle.

Tuesday 20 August
SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘Relationships of soil properties to water repellence and the effectiveness of clay ameliorants’, Irene McKissock, Miningology, Soil Science and Plant Nutrition. 4pm, Agriculture Lecture Theatre.

Wednesday 21 August
ANATOMY AND HUMAN BIOLOGY SEMINAR
‘A story of commercialisation in a university context: the US cavalry or a Trojan Horse?’, Dr Stuart Bunt, Paradigm Diagnostics. 1pm, Room I.81, ANHB Building.

GEOGRAPHY SEMINAR
‘Integrated voluntary environmental management systems: community and catchment perspectives’, Megan Farrelly. 1pm, Geography Lecture Theatre I.

Friday 23 August
CLIMA SEMINAR
‘Breeding yellow lupins in Western Australia’, Dr Kedar Adhikari; ‘Lupin genome mapping’, Marie Scobie. 4pm, CLIMA Seminar Room.

MICROBIOLOGY SEMINAR
‘Molecular biology of central nerve repair’, Professor Lyn Beazley, Zoology. 9am, Seminar Room I.1, First Floor, L Block, QEIMC.

Tuesday 27 August
SOIL SCIENCE AND PLANT NUTRITION SEMINAR
‘The leaching of soil phosphorus: 100 years of getting it wrong’, Professor Phil Brookes, IACR-Rothamsted, England. 4pm, Agriculture Lecture Theatre.

POPULATION HEALTH SEMINAR
‘What is the use of a birth defects register?’ Carol Bower, ICHR. 11am, Hew Roberts Lecture Theatre.

INSTITUTE OF ADVANCED STUDIES PUBLIC LECTURE
‘Science as uncertainty: from fractals in forecasting, to chaos in climate change’, Dr Leonard Smith, Pembroke College, Oxford. 1pm, Joske Seminar Room, Medicine, Fourth Floor, G Block, SCGH.

Wednesday 28 August
Quiz Night
It’s become known as one of the best fun nights on the campus for only $8 a ticket. If you haven’t already booked a table, you are welcome to buy your tickets at tables available for you.
Be at University House by 7pm for a 7.30pm start.

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Counselling is also available for staff on campus through the Support Centre (Student Services). Call Tom Sputore on extension 2426. For appointments, please ring Davidson Trahaire on 9382 8100 or if urgent 9480 4847 (24 hours). Their offices are located at Suite 11, 100 Hay St, Subiaco. Further information can be obtained at www.admin.uwa.edu.au/lisho

UWA Employee Assistance Program
There are times when all of us have challenging issues to deal with. When personal or work related issues make life difficult, the University has an Employee Assistance Program (EAP) to help staff manage these issues more effectively. The EAP is a professional, confidential counselling and consultation service. The services of Davidson Trahaire are available FREE to you and your family.

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**GRANTS FROM THE GENERAL STAFF DEVELOPMENT FUND**

Members of general staff may apply for individual grants from the Staff Development Fund to attend courses and conferences. In the last rounds of applications, the following staff were awarded grants:

- Jennifer Edgecombe Archives and Central Records, Mail Technologies and the Future
- Ryan McConigley Computer Science and Software Engineering, SIGGRAPH 2002
- Felicity Gouldthorp 6th Pacific Rim First-year Experience in Higher Education Conference
- Jannette Barrett Faculty of Economics and Commerce Student Centre, AVCC Student Administration Conference
- Margaret Durling Human Movement and Exercise Science, Word ‘97 Intermediate
- Barbara Smith Human Movement and Exercise Science, Word ‘97 Intermediate
- Carol Newton-Smith Library, Lifelong Learning Conference
- Deborah Rhys-Jones Library, “From Chaos to CARM” training course
- Simon Stanton-Cook Office of Facilities Management, Management Development for the Facilities Manager
- Joanne Silver Research Ethics, ANZCCART Conference 2002
- Claire O’Malley Research Services, CPA Congress 2002
- Geoffrey Cooper Library, The Scholarship of Teaching and Learning Conference

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**Hey that’s me — on the salt lake in the outback!**

Perth International Arts Festival director Sean Doran’s dream of expanding the festival to reach everybody in WA has taken a giant step ...

... in fact many thousands of giant steps, to an outback salt lake, west of the town of Menzies.

Internationally-renowned English sculptor Antony Gormley has started work on creating an exhibition of stainless steel ‘people’, sculpted from computer images of real people, which will be installed on Lake Ballard in December.

Following a similar project he completed in Japan, Antony is attempting to capture the essence of one hundred Perth and Menzies residents. He and his team of image scanning experts are scanning the bodies of volunteers, and, using specifically-designed computer software, then reducing the three-dimensional images by 66 per cent, resulting in a concentrated stick-like body form which the artist says constitutes the inner core of the human figure.

These figures will then be cast in stainless steel with other alloys added to give the figures a charcoal-like look.

“I don’t know if the installation will stay permanently at Lake Ballard after the festival,” said Antony, while meeting some of the volunteers who had their bodies scanned at the School of Music last month.

The work has been commissioned by PIAF to celebrate its Golden Anniversary.
WANTED TO BUY

BABY TRAILER (seating two) wanted for pushbike. Also, trailer bike for an older child (3 years) attaching to an adult bike. Contact Martha Hickey at mhickey@obsgyn.uwa.edu.au or tel: 9340 1328; 9336 3237 (hm).

WANTED TO RENT

SHORT-LET ACCOMMODATION WANTED for family with 2 small children relocating from Melbourne. 3 bedroom house, with swimming pool and garden. 28 December 2002 to end January 2003 (approx.). Preferably within 10km radius of Fremantle. Price negotiable but willing to pay a substantial rent for the right place. Contact Stuart Collison on 0417 736 771.

2002 Excellence in Teaching Awards

This is to advise all staff that a call for the 2002 Excellence in Teaching Awards has now been distributed to Faculties and Schools. During late 2001 and early 2002 the Awards were reviewed by the Excellence in Teaching Awards Committee to take account of restructuring and any issues of concern regarding the success of the Awards.

As a consequence, the configuration of Awards for 2002 has been slightly changed and comprise as follows:

A. Self or peer nominated awards — Inclusivity Award — Innovation Award

Staff are encouraged to consider the two self- or peer-nominated awards. The deadline for receipt of submissions is Friday 25 October.

B. Student nominated Awards — Individual Teaching Awards — Individual Teaching at First-year Awards — Honours Research Supervision Award — Postgraduate Coursework Teaching Award — Postgraduate Research Supervision Award — Unit Award

As a result of restructuring the individual teaching awards will not be considered on a faculty basis, but by the following two divisions:

DIVISION 1 — HUMANITIES/SOCIAL SCIENCES


DIVISION 2 — SCIENCES

Engineering, Computing and Mathematics, Life and Physical Sciences, Medicine and Dentistry, Natural and Agricultural Sciences

The closing date for nominations for the student-nominated awards is Friday 25 October 2002

Guidelines and contact details for these awards are available on the web at http://www.csd.uwa.edu.au/tl/excellence.html

Sue Smurthwaite, Executive Officer, Teaching and Learning Committee, University Secretariat, Registrar’s Office

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